CLAIMS

What is claimed is:

1 1. A method for filtering messages comprising:

2 determining a first semantic anchor corresponding to a first group of messages

3 and a second semantic anchor corresponding to a second group of messages;

4 determining a vector corresponding to an incoming message;

5 comparing the vector corresponding to the incoming message with at least one of

6 the first semantic anchor and the second semantic anchor to obtain a first comparison

7 value and a second comparison value; and

8 filtering the incoming message based on the first comparison value and the second

9 comparison value.

1 2. A method as in claim 1, wherein said second group of messages are defined as

2 unsolicited messages, and said first group of messages are defined to not be unsolicited

3 messages.

1 3. A method as in claim 2, wherein the first semantic anchor and the second

2 semantic anchor are vectors obtained using a training message corpus comprising

3 previously received unsolicited messages and previously received messages defined not

4 to be unsolicited messages.

1   4.   A method as in claim 3, wherein the training message corpus is used to obtain a

2   matrix W comprising a word distribution factor.

1   5.   A method as in claim 4, wherein the matrix W is used to generate the first

2   semantic anchor and the second semantic anchor using singular value decomposition.

1   6.   A method as in claim 1, wherein the first group of messages, the second group of

2   messages and the incoming message comprise messages from at least one of email

3   messages, email attachments, and computer programs.

1   7.   A method as in claim 1, wherein determining a vector corresponding to an

2   incoming message comprises using singular value decomposition to generate the vector

3   corresponding to the incoming message.

1   8.   A method as in claim 1, wherein comparing the vector corresponding to the

2   incoming message with at least one of the first semantic anchor and the second semantic

3   anchor comprises determining an angle between the vector corresponding to the incoming

4   message and at least one of the first semantic anchor and the second semantic anchor.

1   9.   A method as in claim 1, wherein comparing the vector corresponding to the

2   incoming message with at least one of the first semantic anchor and the second semantic

3   anchor comprises comparing the length of a normal between the first semantic anchor and

4 the vector corresponding to the incoming message, and the length of a normal between

5 the second semantic anchor and the vector corresponding to the incoming message.

1 10. A method as in claim 1, wherein comparing the vector corresponding to the

2 incoming message with at least one of the first semantic anchor and the second semantic

3 anchor to obtain a first comparison value and a second comparison value comprises

4 permitting a user to decide whether the incoming message is from the first group of

5 messages or from the second group of messages when the first comparison value is

6 substantially equal to the second comparison value.

1 11. A method as in claim 10, wherein filtering the incoming message based on the

2 first comparison value and the second comparison value comprises at least one of

3 automatically filtering the incoming messages, and tagging the incoming message.

1 12. A method as in claim 11, wherein tagging the incoming message comprises at

2 least one of tagging the incoming message with a first tag for a message corresponding

3 with the first group of messages, tagging the incoming message with a second tag for a

4 message corresponding with the second group of messages, and tagging the incoming

5 message with a third tag when the first comparison value is substantially equal to the

6 second comparison value.

1 13. An article of manufacture comprising:

2   a machine-accessible medium including instructions that, when executed by a

3   machine, causes the machine to perform operations comprising

4   determining a first semantic anchor corresponding to a first group of messages

5   and a second semantic anchor corresponding to a second group of messages;

6   determining a vector corresponding to an incoming message;

7   comparing the vector corresponding to the incoming message with at least one of

8   the first semantic anchor and the second semantic anchor to obtain a first comparison

9   value and a second comparison value; and

10   filtering the incoming message based on the first comparison value and the second

11   comparison value.

1   14.   An article of manufacture as in claim13, wherein said second group of messages

2   are defined as unsolicited messages, and said first group of messages are defined to not be

3   unsolicited messages.

1   15.   An article of manufacture as in claim14, wherein said instructions for obtaining

2   the first semantic anchor and the second semantic anchor include further instructions for

3   obtaining vectors using a training message corpus comprising previously received

4   unsolicited messages and previously received messages defined not to be unsolicited

5   messages.

1   16.   An article of manufacture as in claim 15, wherein said instructions for obtaining

2   vectors using a training message corpus comprises further instructions for obtaining a

3   matrix W comprising a word distribution factor.

1   17.   An article of manufacture as in claim 16, wherein said instructions for obtaining

2   matrix W comprises further instructions for generating the first semantic anchor and the

3   second semantic anchor using singular value decomposition.

1   18.   An article of manufacture as in claim 13, wherein said first group of messages,

2   said second group of messages and said incoming message comprise messages from at

3   least one of email messages, email attachments, and computer programs.

1   19.   An article of manufacture as in claim 13, wherein said instructions for

2   determining a vector corresponding to an incoming message comprises further instruction

3   for using singular value decomposition to generate the vector corresponding to the

4   incoming message.

1   20.   An article of manufacture as in claim 13, wherein said instructions for comparing

2   the vector corresponding to the incoming message with at least one of the first semantic

3   anchor and the second semantic anchor comprises further instructions for determining an

4   angle between the vector corresponding to the incoming message and at least one of the

5   first semantic anchor and the second semantic anchor.

1 21. An article of manufacture as in claim 13, wherein said instructions for comparing

2 the vector corresponding to the incoming message with at least one of the first semantic

3 anchor and the second semantic anchor comprises further instructions for comparing the

4 length of a normal between the first semantic anchor and the vector corresponding to the

5 incoming message, and the length of a normal between the second semantic anchor and

6 the vector corresponding to the incoming message.

1 22. An article of manufacture as in claim 13, wherein said instructions for comparing

2 the vector corresponding to the incoming message with at least one of the first semantic

3 anchor and the second semantic anchor to obtain a first comparison value and a second

4 comparison value comprises further instructions for permitting a user to decide whether

5 the incoming message is from the first group of messages or from the second group of

6 messages when the first comparison value is substantially equal to the second comparison

7 value.

1 23. An article of manufacture as in claim 22, wherein said instructions for filtering the

2 incoming message based on the first comparison value and the second comparison value

3 comprises further instructions for at least one of automatically filtering the incoming

4 messages, and tagging the incoming message

1 24. An article of manufacture as in claim 23, wherein said instructions for tagging the

2 incoming message comprises further instructions for at least one of, tagging the incoming

3 message with a first tag for a message corresponding with the first group of messages,

4   tagging the incoming message with a second tag for a message corresponding with the

5   second group of messages, and tagging the incoming message with a third tag when the

6   first comparison value is substantially equal to the second comparison value.

1   25.   A computer system comprising:

2   a bus;

3   a data storage device coupled to said bus;

4   a processor coupled to said data storage device;

5   a singular value decomposition unit communicatively coupled to the processor to

6   determine a first semantic anchor corresponding to a first group of messages and a second

7   semantic anchor corresponding to a second group of messages;

8   an incoming email conversion unit communicatively coupled to the singular value

9   decomposition unit to determine a vector corresponding to an incoming message;

10   a logic unit communicatively coupled to the incoming email conversion unit and

11   the singular value decomposition unit to compare the vector corresponding to the

12   incoming message with at least one of the first semantic anchor and the second semantic

13   anchor to obtain a first comparison value and a second comparison value, and to filter the

14   incoming message based on the first comparison value and the second comparison value.

1   26.   A computer system as in claim 25, wherein said second group of messages are

2   defined as unsolicited messages, and said first group of messages are defined to not be

3   unsolicited messages.

1 27.   A computer system as in claim 26, wherein the first semantic anchor and the

2 second semantic anchor are vectors obtained using a training message corpus comprising

3 previously received unsolicited messages and previously received messages defined not

4 to be unsolicited messages

1 28.   A computer system as in claim 27, wherein the training message corpus is used to

2 obtain a matrix W comprising a word distribution factor.

1 29.   A computer system as in claim 28, wherein the matrix W is used to generate the

2 first semantic anchor and the second semantic anchor using singular value decomposition.

1 30.   A computer system as in claim 25, wherein the first group of messages, the

2 second group of messages and the incoming message comprise messages from at least

3 one of email messages, email attachments, transcribed audio messages, and computer

4 programs.

1 31.   A computer system as in claim 25, wherein an incoming email conversion unit

2 communicatively coupled to the singular value decomposition unit to determine a vector

3 corresponding to an incoming message comprises the incoming email conversion unit

4 using singular value decomposition to generate the vector corresponding to the incoming

5 message.

1   32.   A computer system as in claim 25, wherein the logic unit communicatively

2   coupled to the incoming email conversion unit and the singular value decomposition unit

3   to compare the vector corresponding to the incoming message with at least one of the first

4   semantic anchor and the second semantic anchor to obtain a first comparison value and a

5   second comparison value comprises the logic unit to determine an angle between the

6   vector corresponding to the incoming message and at least one of the first semantic

7   anchor and the second semantic anchor.

1   33.   A computer system as in claim 25, wherein the logic unit communicatively

2   coupled to the incoming email conversion unit and the singular value decomposition unit

3   to compare the vector corresponding to the incoming message with at least one of the first

4   semantic anchor and the second semantic anchor to obtain a first comparison value and a

5   second comparison value comprises the logic unit to compare the length of a normal

6   between the first semantic anchor and the vector corresponding to the incoming message,

7   and the length of a normal between the second semantic anchor and the vector

8   corresponding to the incoming message.

1   34.   A computer system as in claim 25, wherein the logic unit communicatively

2   coupled to the incoming email conversion unit and the singular value decomposition unit

3   to compare the vector corresponding to the incoming message with at least one of the first

4   semantic anchor and the second semantic anchor to obtain a first comparison value and a

5   second comparison valuecomprises the logic unit to permit a user to decide whether the

6   incoming message is from the first group of messages or from the second group of

7   messages when the first comparison value is substantially equal to the second comparison

8   value.

1   35.   A computer system as in claim 34, wherein the logic unit to filter the incoming

2   message based on the first comparison value and the second comparison value comprises

3   the logic unit to at least one of automatically filter the incoming messages, and to tag the

4   incoming message.

1   36.   A computer system as in claim 35, wherein the logic unit to tag the incoming

2   message comprises at least one of the logic unit to tag the incoming message with a first

3   tag for a message corresponding with the first group of messages, the logic unit to tag the

4   incoming message with a second tag for a message corresponding with the second group

5   of messages, and the logic unit to tag the incoming message with a third tag when the

6   first comparison value is substantially equal to the second comparison value.

1   37.   An apparatus comprising:

2   means for determining a first semantic anchor corresponding to a first group of

3   messages and a second semantic anchor corresponding to a second group of messages;

4   means for determining a vector corresponding to an incoming message;

5   means for comparing the vector corresponding to the incoming message with at

6   least one of the first semantic anchor and the second semantic anchor to obtain a first

7   comparison value and a second comparison value; and

8   means for filtering the incoming message based on the first comparison value and

9   the second comparison value.

1   38.   An apparatus as in claim 37, wherein said second group of messages are defined

2   as unsolicited messages, and said first group of messages are defined to not be unsolicited

3   messages.

1   39.   An apparatus as in claim 38, wherein the first semantic anchor and the second

2   semantic anchor are vectors obtained using a training message corpus comprising

3   previously received unsolicited messages and previously received messages defined not

4   to be unsolicited messages.

1   40.   An apparatus as in claim 39, wherein the training message corpus is used to obtain

2   a matrix W comprising a word distribution factor.

1   41.   An apparatus as in claim 40, wherein the matrix W is used to generate the first

2   semantic anchor and the second semantic anchor using singular value decomposition.

1   42.   An apparatus as in claim 37, wherein the first group of messages, the second

2   group of messages and the incoming message comprise messages from at least one of

3   email messages, email attachments, and computer programs.

1   43.   An apparatus as in claim 37, wherein the means for determining a vector

2   corresponding to an incoming message comprises means for using singular value

3   decomposition to generate the vector corresponding to the incoming message.

1   44.   An apparatus as in claim 37, wherein the means for comparing the vector

2   corresponding to the incoming message with at least one of the first semantic anchor and

3   the second semantic anchor comprises means for determining an angle between the vector

4   corresponding to the incoming message and at least one of the first semantic anchor and

5   the second semantic anchor.

1   45.   An apparatus as in claim 37, wherein the means for comparing the vector

2   corresponding to the incoming message with at least one of the first semantic anchor and

3   the second semantic anchor comprises means for comparing the length of a normal

4   between the first semantic anchor and the vector corresponding to the incoming message,

5   and the length of a normal between the second semantic anchor and the vector

6   corresponding to the incoming message.

1   46.   An apparatus as in claim 37, wherein the means for comparing the vector

2   corresponding to the incoming message with at least one of the first semantic anchor and

3   the second semantic anchor to obtain a first comparison value and a second comparison

4   value comprises means for permitting a user to decide whether the incoming message is

5   from the first group of messages or from the second group of messages when the first

6   comparison value is substantially equal to the second comparison value.

1   47.   An apparatus as in claim 46, wherein the means for filtering the incoming

2   message based on the first comparison value and the second comparison value comprises

3   means for at least one of automatically filtering the incoming messages, and tagging the

4   incoming message.

1   48.   An apparatus as in claim 47, wherein the means for tagging the incoming message

2   comprises means for at least one of tagging the incoming message with a first tag for a

3   message corresponding with the first group of messages, tagging the incoming message

4   with a second tag for a message corresponding with the second group of messages, and

5   tagging the incoming message with a third tag when the first comparison value is

6   substantially equal to the second comparison value.